

Claims

1. A method for processing a wafer comprising:  
applying a process to the wafer, the process being supported by a surface tension gradient device;  
monitoring a result of the process; and  
outputting the monitored result.
2. The method of claim 1, wherein the process can include at least one of a group of processes consisting of a cleaning process, a rinsing process, a drying process, an etch process, a deposition process, and an electroplating process.
3. The method of claim 1, wherein the result of the process is monitored by an in-situ sensor.
4. The method of claim 3, wherein the in-situ sensor can include at least one of a group consisting of an optical sensor and an eddy current sensor.
5. The method of claim 1, wherein the surface tension gradient device includes a proximity head.
6. The method of claim 1, wherein the monitored result is output in real time.
7. The method of claim 1, further comprising adjusting the process according to the monitored results.
8. The method of claim 1, wherein the monitored result is output to a process controller.

9. The method of claim 8, wherein the process controller adjusts the process according to the monitored results.
10. The method of claim 9, wherein the process controller adjusts the process in real time.
11. A wafer processing system comprising:  
at least one surface tension gradient device capable of supporting a process;  
an in-situ sensor for monitoring a result of the process; and  
a system controller being coupled to the in-situ sensor and the surface tension gradient device, the system controller including a process recipe.
12. The system of claim 11, wherein the process can include at least one of a group of processes consisting of a cleaning process, a rinsing process, an etch process, a deposition process, and an electroplating process.
13. The system of claim 11, wherein the in-situ sensor can include at least one of a group consisting of an optical sensor and an eddy current sensor.
14. The system of claim 11, wherein the monitored result is output in real time.
15. The system of claim 11, wherein the surface tension gradient device includes a proximity head.
16. The system of claim 11, wherein the process is supported within a meniscus supported by the surface tension gradient device.
17. The system of claim 16, wherein the in-situ sensor is included within the surface tension gradient device.

18. The system of claim 17, wherein the meniscus includes a dry region surrounding the in-situ sensor.
19. The system of claim 11, wherein the in-situ sensor can be moved with the surface tension gradient device.
20. The system of claim 11, wherein the in-situ sensor can be moved independent from the surface tension gradient device.
21. A method for processing a wafer comprising:
  - applying a process to the wafer, the process being supported by a proximity head;
  - monitoring a result of the process with an in-situ sensor;
  - outputting the monitored result to a process controller in real time; and
  - adjusting a recipe for the process in the process controller in real time according to the monitored results.